

What is claimed is:

- 1 1. A method comprising:
  - 2 auditing less than all of a number of transactions within a computing device,
  - 3 wherein auditing of one of the number of transactions comprises:
    - 4 storing at least one attributes of the one of the number of transactions
    - 5 into an audit log within a memory of the computing device;
    - 6 encrypting the audit log based on an encryption key that is generated
    - 7 and stored within the computing device;
    - 8 generating an integrity metric of the audit log; and
    - 9 generating a signature of the integrity metric with a signature key
  - 10 that is generated and stored within the computing device.
- 1 2. The method of claim 1, wherein auditing of one of the number of
- 2 transactions further comprises generating a signature of a value of an audit counter
- 3 with the signature key.
- 1 3. The method of claim 2, wherein auditing of one of the number of
- 2 transactions further comprises appending the integrity metric, the signature of the
- 3 integrity metric, the signature of the value of the audit counter and the value of the
- 4 audit counter to the audit log.
- 1 4. A method comprising:
  - 2 selectively auditing a number of transactions between a computing device
  - 3 and a separate device based on a type for the number of transactions, wherein
  - 4 selectively auditing of the number of transactions includes securely storing at least
  - 5 one attribute of selected audited transactions within the computing device.
- 1 5. The method of claim 4, wherein securely storing the at least one attribute of
- 2 one of the selected audited transactions comprises:

3           storing at least one attribute of the selected audited transaction into an audit  
4   log into a memory in the computing device; and  
5           encrypting the audit log based on an encryption key that is generated and  
6   stored within the computing device.

1   6.       The method of claim 4, wherein securely storing the at least one attribute  
2   comprises:

3           generating an integrity metric of the audit log; and  
4   generating a signature of the integrity metric with a signature key that is generated  
5   and stored within the computing device.

1   7.       The method of claim 6, wherein securely storing the at least one attribute  
2   comprises:

3           incrementing an audit counter; and  
4   storing a value of the audit counter, the integrity metric and the signature in  
5   the audit log.

1   8.       The method of claim 4, wherein the at least one attribute is selected from a  
2   group consisting of the type of transaction, a monetary amount of the transaction  
3   and a time of the transaction.

1   9.       A method comprising:

2           receiving events based on communications between a computing device and  
3   a separate entity;

4           auditing less than all of the events based on a type for the events, wherein  
5   the auditing comprises:

6           opening an audit session upon receipt of one of the events to be  
7   audited;

8           incrementing a value of an audit counter after the audit session is  
9   open;

1 10. The method of claim 9, wherein receiving the events based on the  
2 communications between the computing device and the separate entity comprises  
3 receiving the events based on transactions between the computing device and the  
4 separate entity.

1 11. The method of claim 9, wherein the attributes are selected from a group  
2 consisting of the type of transaction, a monetary amount of the transaction and a  
3 time of the transaction.

1 12. An apparatus comprising:  
2 a control logic to selectively audit transactions between the apparatus and a  
3 separate entity based on a type for the transactions; and  
4 an encryption logic to encrypt an audit log that includes at least one attribute  
5 of one of the selectively audited transactions.

1 13. The apparatus of claim 12 further comprising a memory to securely store the  
2 at least one attribute in an audit log.

1 14. The apparatus of claim 13 further comprising a hashing logic to generate an  
2 integrity metric of the audit log.

1       15.    The apparatus of claim 14 further comprising:  
2            a key generation logic to generate a signature key; and  
3            a signature logic to generate a signature of the integrity metric based on the  
4            signature key to store the signature of the integrity metric in the audit log.

1       16.    The apparatus of claim 15, wherein the selectively audited transactions  
2    include a number of audit events, the control logic is to activate an audit session  
3    after receipt of an audit event in the apparatus when no audit session is active in the  
4    apparatus.

1       17.    The apparatus of claim 16 further comprising an audit counter, wherein the  
2    control logic is to increment a value of the audit counter after activation of the audit  
3    session.

1       18.    The apparatus of claim 16, wherein the signature logic is to generate a  
2    signature of the audit counter based on the signature key to store the signature of the  
3    audit counter in the audit log.

1       19.    A system comprising:  
2            an input/output (I/O) logic to receive and transmit data of transactions into  
3    the system;  
4            a flash memory;  
5            a processor to generate events based on execution of an application to  
6    process the data; and  
7            a cryptographic processing module to selectively audit the events, the  
8    cryptographic processing module to securely store an audit log of the selectively  
9    audited events.

- 1    20.    The system of claim 19, wherein the cryptographic processing module is to
- 2    securely store the audit log based on an encryption of the audit log.
  
- 1    21.    The system of claim 20, wherein the cryptographic processing module is to
- 2    generate an integrity metric of the audit log and to generate a signature of the
- 3    integrity metric with a signature key that is generated and stored within the
- 4    cryptographic processing module.
  
- 1    22.    The system of claim 21, wherein the cryptographic processing module is to
- 2    open an audit session after receipt of one of the selectively audited events when no
- 3    audit session is active in the system.
  
- 1    23.    The system of claim 21, wherein the cryptographic processing module
- 2    comprises an audit counter, wherein the cryptographic processing module is to
- 3    increment the audit counter after the audit session is open.
  
- 1    24.    The system of claim 21, wherein the cryptographic processing module is to
- 2    store a value of the audit counter, the signature and the integrity metric in the audit
- 3    log.
  
- 1    25.    The system of claim 19, wherein the cryptographic processing module is to
- 2    securely store the audit log of the selectively audited events in the flash memory.
  
- 1    26.    The system of claim 19, wherein the cryptographic processing module is to
- 2    securely store the audit log of the selectively audited events in a memory internal to
- 3    the cryptographic processing module.
  
- 1    27.    A machine-readable medium that provides instructions, which when
- 2    executed by a machine, cause said machine to perform operations comprising:

3            auditing less than all of a number of transactions within a computing device,  
4    wherein auditing of one of the number of transactions comprises:  
5                storing at least one attributes of the one of the number of transactions  
6    into an audit log within a memory of the computing device;  
7                encrypting the audit log based on an encryption key that is generated  
8    and stored within the computing device;  
9                generating an integrity metric of the audit log; and  
10   generating a signature of the integrity metric with a signature key that is generated  
11   and stored within the computing device.

1    28.   The machine-readable medium of claim 27, wherein auditing of one of the  
2    number of transactions further comprises generating a signature of a value of an  
3    audit counter with the signature key.

1    29.   The machine-readable medium of claim 28, wherein auditing of one of the  
2    number of transactions further comprises appending the integrity metric, the  
3    signature of the integrity metric, the signature of the value of the audit counter and  
4    the value of the audit counter to the audit log.

1    30.   A machine-readable medium that provides instructions, which when  
2    executed by a machine, cause said machine to perform operations comprising:  
3                selectively auditing a number of transactions between a computing device  
4    and a separate device based on a type for the number of transactions, wherein  
5    selectively auditing of the number of transactions includes securely storing at least  
6    one attribute of selected audited transactions within the computing device.

1    31.   The machine-readable medium of claim 30, wherein securely storing the at  
2    least one attribute of one of the selected audited transactions comprises:  
3                storing at least one attribute of the selected audited transaction into an audit  
4    log into a memory in the computing device; and

5                    encrypting the audit log based on an encryption key that is generated and  
6                    stored within the computing device.

1    32.        The machine-readable medium of claim 30, wherein securely storing the at  
2                    least one attribute comprises:

3                    generating an integrity metric of the audit log; and  
4                    generating a signature of the integrity metric with a signature key that is generated  
5                    and stored within the computing device.

1    33.        The machine-readable medium of claim 32, wherein securely storing the at  
2                    least one attribute comprises:

3                    incrementing an audit counter; and  
4                    storing a value of the audit counter, the integrity metric and the signature in  
5                    the audit log.

1    34.        A machine-readable medium that provides instructions, which when  
2                    executed by a machine, cause said machine to perform operations comprising:  
3                    receiving events based on communications between a computing device and  
4                    a separate entity;

5                    auditing less than all of the events based on a type for the events, wherein  
6                    the auditing comprises:

7                    opening an audit session upon receipt of one of the events to be  
8                    audited;

9                    incrementing a value of an audit counter after the audit session is  
10                    open;

11                    storing attributes of the events to be audited in an audit log; and  
12                    performing the following operations after the audit session is closed:

13                    generating a hash of the audit log;

14                    generating a digital signature of the hash and the value of the  
15                    audit counter based on a first encryption key;

18        encrypting the attributes of the events store in the audit log with a second  
19        encryption key that is different from the first encryption key.

1    35.    The machine-readable medium of claim 34, wherein receiving the events  
2    based on the communications between the computing device and the separate entity  
3    comprises receiving the events based on transactions between the computing device  
4    and the separate entity.

1 36. The machine-readable medium of claim 35, wherein the attributes are  
2 selected from a group consisting of the type of transaction, a monetary amount of  
3 the transaction and a time of the transaction.